



July 6, 2006

Mr. Nabil S. Fayoumi
U. S. EPA - Region 5
77 West Jackson Boulevard (SR-6J)
Chicago, Illinois 60604-3590

Re: Sauget Area 2 Site – October 3, 2002 Unilateral Administrative Order (UAO) Groundwater Operable Unit Monthly Report; June 1 - June 30, 2006 Reporting Period

Dear Nabil:

Attached is the Monthly Report for the Sauget Area 2 Site October 3, 2002 Unilateral Administrative Order (UAO) - Groundwater Operable Unit. This submittal is in fulfillment of the monthly reporting requirements of the UAO, Section XII, paragraph 62, Progress Reports. This report is for the period June 1 – June 30, 2006.

Sincerely,

Steven D. Smith Project Coordinator

cc: Ken Bardo, - U. S. EPA

Mayor Sauget - Sauget, IL

Sandra Bron – IEPA Mike Coffey - USFWS

Village of Sauget – c/o P. H. Weis & Associates (Attn: Brian Nelson)

Mayor Frank Bergman – Cahokia L. Glen Kurowski - Monsanto

Cathleen Bumb - Solutia

Linda Tape - Husch & Eppenberger

Richard Williams - Solutia

# Sauget Area 2 Site - Sauget, Illinois

# October 3, 2002 UAO – Groundwater Operable Unit

# **Status Report**

**Date of Report:** July 10, 2006

**Period Covered:** June 1 - June 30, 2006

## **Work Performed During the Reporting Period**

#### **General Site Work**

- On July 19, 2005 the Agency was requested by e-mail to complete a Final Inspection and issue a Construction Complete notice. At a meeting held on January 12, 2006, it was agreed that a draft of the Final Completion Report would be submitted to the Agency and that submission was made on February 17, 2006.
- Comments on the Operations and Maintenance Plan, which was submitted to the Agency on June 21, 2005, were received on September 20<sup>th</sup>. Responses to those comments were submitted on April 10, 2006, together with a revised O&M Plan.

### **Groundwater Treatment**

- Interim Operating Period (IOP) III began on February 1, 2006 and concluded at the end of May. A report summarizing the results obtained during this interim period is being prepared and recommendations for the long term operating criteria will be presented in that report. Until those criteria are finalized, the system will continue to be operated to maintain the total pumping rate equal to the computed inflow rate, based on the average of the gradients measured in the two existing pairs of piezometers located immediately upgradient of the Site R landfill
- For the entire month of June, the system was operated in this manner. For the majority of the month, the control system was programmed to operate extraction wells EW-1 and EW-3, with well EW-2 shut down. However, the river level rose on June 4<sup>th</sup> and well EW-2 was operated until June 7<sup>th</sup> with EW-2 and EW-3 shut down during this period. These wells were restarted on June 7<sup>th</sup> and EW-2 was turned off.
- On June 17<sup>th</sup>, there was a power outage at the site that lasted for approximately 8 hours. The system was restarted later that same day,

- On June 19<sup>th</sup>, the sensor in the inside member of the piezometer PZ-1 pair failed and a new sensor was installed. The pair were also recalibrated.
- The validated results for the third quarter (December 2005) groundwater samples of the performance monitoring wells were submitted to the Agency in June.
- Analytical results for the first quarter 2006 groundwater samples, as well as the first 2006 semiannual surface water and sediment samples, are being validated.
- The 2006 second quarter samples from the groundwater performance monitoring wells were obtained during the reporting period.
- Water level and pumping data for the month of June are attached.

#### **Schedule**

The Agency is currently reviewing various submissions to determine if construction is complete.

## **Submittals During Reporting Period**

The validated results for the third quarter (December 2005) groundwater samples of the performance monitoring wells were submitted to the Agency during the reporting period.

## Work Scheduled for Next Reporting Period

- Continue operating the extraction system to maintain the total pumping rate equal to the computed inflow rate
- Prepare a report summarizing the results obtained during IOP III and provide recommendations for the long term operating criteria for the system.
- Submit validated results from the 2006 first quarter groundwater performance monitoring samples and the first 2006 semiannual surface water and sediment samples.
- Analyze the 2006 second quarter samples from the groundwater performance monitoring wells.
- Begin semi-annual pump replacement.
- Mow grass on entire site.

# **PUMPING DATA**

## GMCS Daily Average Data June 2006

		PUMPING RA	TE		<del>:</del>		
1		FUNIFING KA	.16			}	)
		Computed					
Date/Time		Computed Q	Total Q	EW-1 Q	EW-2 Q	EW-3 Q	SWL
06/01/2006	Date/Time		388.05	194.05	0.00	194.00	
	Daily Average	387.88					389.00
06/02/2006	Daily Average	258.44	263.05	131.53	0.00	131.52	390.32
06/03/2006	Daily Average	120.43	11.77	6.24	0.00	5.53	391.57
06/04/2006	Daily Average	153.96	52.20	0.00	52.20	0.00	390.86
06/05/2006	Daily Average	262.43	263.67	1.02	261.58	1.07	389.73
06/06/2006	Daily Average	311.32	309.29	0.00	309.29	0.00	389.19
06/07/2006	Daily Average	378.18	375.93	78.00	219.90	78.02	388.31
06/08/2006	Daily Average	447.44	446.66	223.06	0.53	223.08	387.41
06/09/2006	Daily Average	558.68	553.18	276.58	0.00	276.60	386.34
06/10/2006	Daily Average	659.17	657.05	328.55	0.00	328.51	385.24
06/11/2006	Daily Average	689.78	683.10	341.65	0.00	341.45	385.33
06/12/2006	Daily Average	618.38	622.63	311.32	0.00	311.31	386.06
06/13/2006	Daily Average	530.34	529.68	264.82	0.00	264.87	386.75
06/14/2006	Daily Average	545.54	542.95	271.47	0.00	271.48	386.42
06/15/2006	Daily Average	575.33	574.29	287.14	0.00	287.15	385.83
06/16/2006	Daily Average	588.37	588.54	294.10	0.30	294.14	385.75
06/17/2006	Daily Average	644.99	423.89	212.38	0.00	211.50	379.42
06/18/2006	Daily Average	657.16	648.41	329.05	0.00	319.36	384.72
06/19/2006	Daily Average	677.06	668.26	337.06	0.00	331.20	384.45
06/20/2006	Daily Average	775.48	774.12	387.09	0.00	387.03	383.36
06/21/2006	Daily Average	788.18	788.67	394.36	0.00	394.30	383.62
06/22/2006	Daily Average	785.04	783.84	391.95	0.00	391.89	383.26
06/23/2006	Daily Average	797.20	797.34	398.70	0.00	398.63	383.06
06/24/2006	Daily Average	800.83	802.49	401.28	0.00	401.22	383.18
06/25/2006	Daily Average	725.20	739.25	367.02	5.28	366.95	383.53
06/26/2006	Daily Average	747.76	746.45	373.27	0.00	373.18	383.68
06/27/2006	Daily Average	744.93	745.33	372.29	0.96	372.08	383.54
06/28/2006	Daily Average	713.99	714.90	357.47	0.00	357.43	383.73
06/29/2006	Daily Average	713.10	712.22	356.14	0.00	356.08	383.60
06/30/2006	Daily Average	698.14	698.72	349.39	0.00	349.33	383.76

GMCS Daily Average Data June 2006

	GROUNDWATER LEVELS											
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Date/Time	PZ-5U	PZ-5D	Delta	PZ-6U	PZ-6D	Delta	PZ-7U	PZ-7D	Delta	P <u>Z-8U</u>	PZ-8D	Delta
06/01/2006 Daily Average	390.70	390.43	-0.27	390.34	390.36	0.02	390.50	390.11	-0.39	390.39	389.89	-0.50
06/02/2006 Daily Average	390.77	390.58	-0.19	390.34	390.36	0.02	390.47	390.14	-0.33	390.43	390.10	-0.33
06/03/2006 Daily Average	390.99	390.93	-0.04	390.64	390.67	0.03	390.75	390.44	-0.31	390.71	390.52	-0.19
06/04/2006 Daily Average	391.03	390.93	-0.07	390.70	390.71	0.01	390.82	390.52	-0.30	390.79	390.57	-0.22
06/05/2006 Daily Average	390.84	390.67	-0.17	390.50	390.48	-0.03	390.66	390.29	-0.37	390.59	390.24	-0.35
06/06/2006 Daily Average	390.76	390.52	-0.24	390.36	390.33	-0.03	390.52	390.15	-0.37	390.47	390.07	-0.39
06/07/2006 Daily Average	390.55	390.27	-0.28	390.20	390.15	-0.06	390.36	389.98	-0.38	390.27	389.79	-0.48
06/08/2006 Daily Average	390.34	389.99	-0.34	390.05	389.97	-0.08	390.20	389.80	-0.41	390.05	389.49	-0.56
06/09/2006 Daily Average	390.18	389.74	-0.44	389.88	389.81	-0.07	390.08	389.62	-0.46	389.88	389.19	-0.69
06/10/2006 Daily Average	389.94	389.43	-0.51	389.69	389.60	-0.09	389.87	389.39	-0.48	389.64	388.82	-0.82
06/11/2006 Daily Average	389.72	389.25	-0.47	389.48	389.50	0.03	389.70	389.19	-0.52	389.43	388.51	-0.91
06/12/2006 Daily Average	389.65	389.17	-0.48	389.40	389.27	-0.14	389.54	389.07	-0.47	389.31	388.54	-0.77
06/13/2006 Daily Average	389.67	389.24	-0.42	389.39	389.26	-0.13	389.51	389.08	-0.43	389.30	388.65	-0.65
06/14/2006 Daily Average	389.57	389.13	-0.44	389.28	389.20	-0.08	389.46	389.01	-0.45	389.24	388.58	-0.67
06/15/2006 Daily Average	389.46	389.01	-0.45	389.20	389.06	-0.15	389.32	388.90	-0.43	389.12	388.41	-0.72
06/16/2006 Daily Average	389.39	388.91	-0.49	389.09	388.97	-0.11	389.27	388.80	-0.47	389.04	388.33	-0.71
06/17/2006 Daily Average	389.37	388.83	-0.54	389.08	388.95	-0.13	389.23	388.80	-0.42	389.00	388.22	-0.78
06/18/2006 Daily Average	389.19	388.66	-0.53	388.94	388.79	-0.15	389.12	388.65	-0.47	388.85	388.05	-0.80
06/19/2006 Daily Average	389.04	388.49	-0.55	388.80	388.62	-0.17	388.97	388.48	-0.48	388.69	387.87	-0.82
06/20/2006 Daily Average	388.84	388.19	-0.64	388.61	388.43	-0.18	388.79	388.27	-0.51	388.50	387.57	-0.93
06/21/2006 Daily Average	388.71	388.06	-0.65	388.48	388.29	-0.19	388.60	388.11	-0.49	388.36	387.40	-0.95
06/22/2006 Daily Average	388.60	387.94	-0.66	388.34	388.16	-0.18	388.49	387.99	-0.50	388.22	387.28	-0.94
06/23/2006 Daily Average	388.42	387.75	-0.67	388.18	388.00	-0.18	388.38	387.85	-0.53	388.07	387.11	-0.96
06/24/2006 Daily Average	388.36	387.67	-0.69	388.10	387.92	-0.18	388.23	387.74	-0.49	387.98	387.03	-0.95
06/25/2006 Daily Average	388.28	387.69	-0.59	388.02	387.85	-0.17	388.20	387.71	-0.50	387.92	387.04	-0.88
06/26/2006 Daily Average	388.24	387.58	-0.66	387.97	387.80	-0.17	388.11	387.63	-0.48	387.86	386.99	-0.87
06/27/2006 Daily Average	388.10	387.50	-0.61	387.89	387.70	-0.19	388.01	387.54	-0.48	387.78	386.87	-0.91
06/28/2006 Daily Average	388.07	387.44	-0.62	387.82	387.64	-0.17	387.95	387.47	-0.47	387.73	386.89	-0.84
06/29/2006 Daily Average	387.97	387.39	-0.58	387.74	387.57	-0.17	387.88	387.41	-0.47	387.67	386.80	-0.86
06/30/2006 Daily Average	387.94	387.38	-0.56	387.64	387.49	-0.15	387.86	387,36	-0.50	387.60	386.75	-0.86

GMCS Daily Average Data June 2006

	-	GROUNDWATER LEVELs								
		PZ-		PZ-		PZ-		PZ-		
}		1_OUTSID	PZ-	2_OUTSID	PZ-	3_OUTSID	PZ-	4_OUTSI	PZ-	
Date/Time		E	1_INSIDE	E	2_INSIDE	E	3_INSIDE	DE	4_INSIDE	
06/01/2006	Daily Average	388.93	389.53	387.62	389.69	388.01	389.04	388.71	389.21	
06/02/2006	Daily Average	389.58	389.80	388.81	389.89	389.13	389.21	389.28	389.45	
06/03/2006	Daily Average	390.39	390.62	390.06	390.53	390.36	389.93	390.07	390.26	
06/04/2006	Daily Average	390.10	390.77	389.49	390.59	389.82	389.95	389.86	390.36	
06/05/2006	Daily Average	389.41	390.34	388.41	389.95	388.79	389.12	389.21	389.93	
06/06/2006	Daily Average	389.08	390.12	387.90	389.69	388.28	388.86	388.87	389.76	
06/07/2006	Daily Average	388.49	389.68	387.00	389.45	387.41	388.63	388.31	389.30	
06/08/2006	Daily Average	387.95	389.04	386.15	389.26	386.59	388.59	387.76	388.71	
06/09/2006	Daily Average	387.33	388.61	385.19	388.93	385.66	388.25			
06/10/2006	Daily Average	386.65	388.08		388.52	384.63	387.82	386.49		
06/11/2006	Daily Average	386.55	387.73		388.24	384.66	387.52			
06/12/2006	Daily Average	386.86	387.72		388.19	385.28	387.46			
06/13/2006	Daily Average	387.23	388.01	385.52	388.38	385.95	387.69		_	
06/14/2006	Daily Average	387.04	387.88		388.27	385.67	387.57			
06/15/2006	Daily Average	386.69	387.73		388.13	385.20	387.44			
06/16/2006	Daily Average	386.57	387.57		387.99	385.10	387.32			
06/17/2006	Daily Average	357.99	365.89		388.14	384.56	387.47			
06/18/2006	Daily Average	126.95	163.54		387.67	384.14	387.10			
06/19/2006	Daily Average	240.81	210.71	383.26	387.43		386.85			
06/20/2006	Daily Average	384.93	386.15		387.07	382.89	386.47			
06/21/2006	Daily Average	384.94	385.07		386.88	383.06	386.24		-	
06/22/2006	Daily Average	384.70	384.92		386.72	382.80	386.10			
06/23/2006	Daily Average	384.55	384.76		386.57	382.61	385.97			
06/24/2006	Daily Average	384.57	384.59		386.46	382.75	385.82			
06/25/2006	Daily Average	384.72	384.75		386.54		385.91			
06/26/2006	Daily Average	384.78	384.66		386.44		385.81			
06/27/2006	Daily Average	384.66	384.52		386.34		385.66			
06/28/2006	Daily Average	384.72	384.53		386.30		385.70			
06/29/2006	Daily Average	384.58	384.50		386.26					
06/30/2006	Daily Average	384.54	384.44	382.57	386.22	383.06	385.58	384.58	385.71	